AMENDMENTS TO THE CLAIMS

Please amend claims 1-6 and 8 and cancel claim 7

Claim 1 (Currently Amended)

An architecture for Converged Broadband Wireless Communications <u>said system comprising</u> ~~CHARACTERIZED BY~~:

~~(1)~~ A converged wireless terminal <u>including</u> ~~comprising~~:

    a) a block radio-frequency and intermediate-frequency and digital broadband transceiver for converting between the base-band signal and the radio frequency, ~~and~~

    b) a block base-band signal and control signal processing engine for processing <u>different</u> ~~various~~ wireless algorithms and protocols, ~~and~~

    c) a Common Air Interface Basic Input/Output System (CAI-BIOS) for the mapping and controlling of different <u>open</u> wireless air-interfaces ~~(wireless standards)~~ to ~~the~~ said broadband transceiver and ~~the~~ said processing engine, ~~and~~

    d) a SIM (Smart Integrated Memory) card or Memory <u>Card</u> ~~Stick~~ for the loading of ~~different~~ <u>said open</u> air interfaces and their <u>open</u> software modules to ~~the~~ said CAI-BIOS<u>,</u>

~~(2)~~ A Common Access Point (CAP) <u>including</u> ~~comprising~~:

    a) a block radio-frequency and smart antennas and broadband transceiver for converting between the base-band signal and the radio frequency, ~~and~~

    b) a block base-band signal and control signal processing engine for processing <u>different</u> ~~various~~ wireless algorithms and protocols, ~~and~~

    c) a Common Air Interface Basic Input/Output System (CAI-BIOS) for the mapping and controlling of different <u>open</u> wireless air-interfaces ~~(wireless standards)~~ to ~~the~~ said broadband transceiver and ~~the~~ said processing engine, ~~and~~

    d) a group of <u>open</u> software modules providing <u>said open</u> ~~various~~ air interfaces ~~(wireless standards)~~ to ~~the~~ said CAI-BIOS, ~~and~~

    e) a block network interface unit for connecting to the backbone wireline networks<u>,</u>~~[.]~~

~~(3)~~ An All-IP (Internet Protocol) Packet Division Multiplex (PDM) backbone or core network <u>including</u> ~~comprising~~:

a) Conventional PDM network, <u>and</u> ~~or~~

b) Public or private PDM network.

Claim 2 (Currently Amended)

The architecture for Converged Broadband Wireless Communications of claim 1 wherein:
<u>said Common Access Point and said converged wireless terminal further comprising:</u>

<u>a)</u> said Common Access Point support<u>ing</u>[s] ~~various~~ <u>open</u> network interfaces ~~(for example,~~ <u>including</u> Fiber Optic, ATM <u>(autonomous transfer mode)</u>, Ethernet, Digital Subscriber Line, Cable, ~~etc)~~ to ~~the~~ said PDM backbone network through wireline link<u>,</u> [;]

<u>b)</u> said Common Access Point support<u>ing</u>[s] ~~various~~ <u>open</u> air interfaces ~~(for example,~~ <u>including</u> GSM (Global System for Mobile Communication)/GPRS (General Packet Radio Service), [W-]CDMA (~~Wideband~~ Code Division Multiple Access), UMTS (Universal Mobile Telecommunications Service), <u>OFDM (Orthogonal Frequency Division Multiplex),</u> IEEE 802.11, 802.15, 802.16 <u>standards</u> and Wireless Local Loop, ~~etc)~~ to ~~the~~ said converged wireless terminal <u>based on said CAI-BIOS architecture</u> ~~through wireless air link~~ <u>, and</u> [;]

<u>c)</u> said converged wireless terminal support<u>ing</u>[s] said <u>open</u> air interfaces to ~~the~~ said common access point <u>based on said CAI-BIOS architecture</u> ~~through wireless air link~~.

Claim 3 (Currently Amended)

The architecture for Converged Broadband Wireless Communications of claim 1 wherein:
<u>said Common Access Point and said converged wireless terminal further comprising:</u>

<u>a)</u> said converged wireless terminal and said common access point <u>being</u> ~~are all~~ open modules and ~~function units and can be~~ reconfigurable, programmable and software definable<u>,</u>[;]

<u>b)</u> said converged wireless terminal and said common access point ~~can~~ automatically or manually ~~run in any of the~~ <u>operative in</u> said <u>open</u> air interfaces <u>based on said CAI-BIOS architecture</u> subject to the service availability<u>,</u> and[;]

c) said common access point ~~can~~ automatically or manually ~~run in any of the~~ operative in said open network interfaces subject to the service availability.

Claim 4 (Currently Amended)

The architecture for Converged Broadband Wireless Communications of claim 1 wherein: said converged wireless terminal and said common access point ~~are~~ communicat~~ing~~ing through All-IP end-to-end direct signaling and protocol,[;] ~~said converged wireless terminal and said common access point~~ and support integrated services of voice, data and video over said All-IP protocol and signaling through said open air interfaces.

Claim 5 (Currently Amended)

The architecture for Converged Broadband Wireless Communications of claim 1 wherein: said CAI-BIOS utilizes ~~performs~~ the mapping and controlling between said open ~~different~~ air interfaces and ~~the~~ said open base-band/control processing engine, ~~the~~ said broadband transceiver as well as ~~the~~ said radio frequency unit of ~~the~~ said converged wireless terminal and ~~the~~ said common access point,[;] ~~said CAI-BIOS is the key unit of the said converged wireless terminal and the said common access point; said CAI-BIOS~~ and generates ~~provides~~ open interface parameters (OIP) ~~information on~~ of said open air interfaces including ~~necessary~~ transmission parameters, modulation parameters, channel parameters, access control parameters, dynamic bandwidth allocation parameters and open spectrum management ~~other specific air interface~~ parameters.

Claim 6 (Currently Amended)

The architecture for Converged Broadband Wireless Communications of claim 1[2] wherein: said open software modules ~~that~~ providing[e] said open air interfaces to said CAI-BIOS in said common access point can be stored in said common access point disks or uploaded from ~~the~~ said PDM backbone networks or uploaded from other remote networks[;] and said open software modules ~~that~~ providing[e] said open air interfaces to said CAI-BIOS in said converged wireless terminal can be loaded in said SIM card or said memory card ~~stick~~.

Claim 7 (Cancelled)

Claim 8 (Currently Amended)

A sample <u>phone</u> ~~product~~ of the converged broadband wireless terminal <u>said system</u> <u>comprising</u> ~~CHARACTERIZED BY~~:

a) <u>open</u> Air Interfaces Options (automatically or manually) <u>based on CAI-BIOS</u> <u>(Common Air Interface Basic Input/Output System) architecture,</u> ~~and~~

b) Security (finger print <u>and digital rights management</u>~~, etc~~), ~~and~~

c) Information recognition (voice recognition[,] <u>and</u> pattern recognition~~, etc~~) <u>,</u>

d) Bandwidth on Demand (Quality of Service Centric) <u>,</u>

e) SIM card or memory <u>card</u> ~~stick~~ <u>containing said open air interfaces of said CAI-BIOS</u> <u>architecture</u> <u>.</u>